AMENDMENTS TO THE CLAIMS

1.   (currently amended). An apparatus for managing data corresponding to a plurality of reticles in a semiconductor manufacturing system, comprising:

a central reticle database configured and arranged to store data associated with the plurality of reticles;

a reticle management controller communicably coupled to the central reticle database, the reticle management controller configured and arranged to store data in the central reticle database, and to retrieve data from the central reticle database; and

a—at least one stocker including a stocker database, a stocker controller communicably coupled to the stocker database and communicably coupled to the reticle management controller, and a plurality of storage locations configured and arranged to store at least one of the plurality of reticles, the stocker controller being configured and arranged to store at least a portion of the data corresponding to the at least one of the plurality of reticles stored within the plurality of storage locations within the stocker database,

wherein the data associated with the plurality of reticles stored in the central reticle database includes first and second

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data, each of the first and second data including a plurality of data portions, ~~portions~~ each portion of the first data being associated ~~with~~ a respective ~~ones of the plurality of reticles~~reticle stored in the at least one stocker, and ~~portions~~ each portion of the second data ~~being~~ corresponding to at least one predetermined data constant associated with ~~more than one of~~ the plurality of reticles stored in the at least one stocker,

wherein the reticle management controller is configured and arranged to retrieve at least a portion of the ~~first and second~~ data corresponding to the plurality of reticles stored within the ~~central reticle~~stocker database, and ~~to provide the retrieved data portion to the stocker controller, the stocker controller being configured and arranged~~ to store the retrieved data portion within the ~~stocker~~ central reticle database, and

wherein the reticle management controller is further configured and arranged to manipulate and to maintain the plurality of reticles based on one or more portions of the first data associated with the respective reticles stored in the at least one stocker, and one or more portions of the second data corresponding to the predetermined data constants associated with ~~more than one of~~ the plurality of reticles stored in the at least one stocker.

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2.   (previously presented) The apparatus of claim 1 wherein the portions of the first data corresponding to each of the plurality of reticles stored in the central reticle database includes a plurality of reticle identifying data.

3.   (original) The apparatus of claim 2 wherein the plurality of reticle identifying data includes:

        an attribute identifying the reticle;

        an attribute identifying the location of the reticle.

4.   (original) The apparatus of claim 3 wherein the plurality of reticle identifying data further includes:

        an attribute identifying a reticle carrier housing the reticle;

        an attribute identifying a the date and time the reticle was entered into use; and

        an attribute identifying a user identifier who created the reticle.

5.   (previously presented) The apparatus of claim 1 wherein the portions of the first data corresponding to each of the plurality

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of reticles stored in the central reticle database includes a plurality of reticle history data.

6. (previously presented) The apparatus of claim 1 wherein the portions of the first data corresponding to each of the plurality of reticles stored in the central reticle database includes a plurality of reticle history data including:

an attribute identifying the number of times the reticle has been retrieved;

an attribute identifying the date the reticle was last retrieved;

an attribute identifying the number of times the reticle has been stored; and

an attribute identifying the date the reticle was last stored.

7. (previously presented) The apparatus of claim 1 wherein the portions of the first data corresponding to each of the plurality of reticles stored in the central reticle database includes a plurality of reticle history data including:

an attribute identifying a user identifier who last selected the reticle; and

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an attribute identifying a user identifier who last stored the reticle.

8.   (previously presented) The apparatus of claim 1 wherein the portions of the first data corresponding to each of the plurality of reticles stored in the central reticle database includes a plurality of reticle maintenance data.

9.   (previously presented) The apparatus of claim 8 wherein the portions of the first data corresponding to each of the plurality of reticles stored in the central reticle database includes the plurality of reticle maintenance data including:

an attribute identifying the number of times the reticle has been cleaned;

an attribute identifying the date on which the reticle was last cleaned;

an attribute identifying the number of times the reticle was inspected; and

an attribute identifying the date on which the reticle was last inspected.

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10.   (original) The apparatus of claim 9 wherein the plurality of reticle maintenance data further includes:

an attribute identifying a user identifier who last cleaned the reticle;

an attribute identifying a location where the reticle was last cleaned;

an attribute identifying a user identifier who last inspected the reticle; and

an attribute identifying a location where the reticle was last inspected.

11.   (previously presented) The apparatus of claim 1 further including:

a central system database configured and arranged to store portions of the second data corresponding to system requirements of the plurality of reticles,

wherein the reticle management controller is communicably coupled to the central system database, the reticle management controller being configured and arranged to store and to retrieve the system data from the central system database.

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12.   (previously presented) The apparatus of claim 11 wherein the

portions of the second data corresponding to the system

requirements of the plurality of reticles includes:

    an attribute identifying the maximum number of cleanings of a

reticle;

    an attribute identifying the maximum number of inspections of

a reticle;

    an attribute identifying the maximum number of uses of a

reticle between inspections; and

    an attribute identifying the maximum number of uses of a

reticle between cleaning.

13.   (previously presented) The apparatus of claim 11 wherein the

portions of the second data corresponding to the system

requirements of the plurality of reticles includes:

    an attribute identifying the maximum time between inspections

of a bare reticle; and

    an attribute identifying the maximum time between cleanings

of a bare reticle.

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14.   (previously presented) The apparatus of claim 11 wherein the

portions of the second data corresponding to the system

requirements of the plurality of reticles includes:

an attribute identifying the maximum time between inspections

of a kitted reticle; and

an attribute identifying the maximum time between cleanings

of a kitted reticle.

15.   (previously presented) The apparatus of claim 1 further

including a plurality of stockers, each of the plurality of

stockers including a stocker controller communicably coupled to

the reticle management controller, a stocker database, and a

plurality of storage locations configured and arranged to store at

least one of the plurality of reticles, the stocker controller

configured and arranged to collect at least a portion of the first

and second data, and to store the at least a portion of the first

and second data within the stocker database,

wherein the reticle management controller is configured and

arranged to receive at least a portion of the first and second

data from each of the plurality of stocker controllers, and to

provide at least a portion of the first and second data to each of

the plurality of stocker controllers.

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16. (currently amended) An apparatus for managing a plurality of reticles in a semiconductor manufacturing system, comprising:

a central reticle database configured and arranged to store data corresponding to the plurality of reticles;

a reticle management controller communicably coupled to the central reticle database, the reticle management controller configured and arranged to store data in the central reticle database, and to retrieve data from the central database;

a̶ at least one stocker unit including a stocker database, a stocker controller communicably coupled to the stocker database and communicably coupled to the reticle management controller, and a plurality of storage locations configured and arranged to store at̶ ̶least̶ ̶one̶ ̶of̶ the plurality of reticles,

wherein the data corresponding to the plurality of reticles stored in the central reticle database includes first and second data, each of the first and second data including a plurality of data portions, portions̶ each portion of the first data corresponding to respective ones̶ ̶of̶ ̶the̶ ̶plurality̶ ̶of̶ reticles̶reticle stored in the at least one stocker unit, and portions̶ each portion of the second data corresponding to at least one predetermined data constant associated with to̶ ̶more̶ ̶than̶ ̶one̶

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~~of~~ the plurality of reticles stored in the at least one stocker

unit,

wherein the reticle management controller is configured and

arranged to retrieve at least a portion of the ~~first and second~~

data corresponding to the plurality of reticles stored within the

~~central reticle~~ stocker database, and ~~to provide the retrieved data~~

~~portion to the stocker controller, the stocker controller being~~

~~configured and arranged~~ to store the retrieved data portion within

the ~~stocker~~ central reticle database; and

a reticle moving system communicably coupled to the reticle

management controller, the reticle moving system being configured

and arranged to load a reticle at a respective stocker unit and to

deliver the loaded reticle to a destination,

wherein the reticle management controller is configured and

arranged to provide one or more move commands to the reticle move

system, the reticle move system being configured and arranged to

receive the one or more move commands and being operative to

execute the one or more move commands.

17. (previously presented) The apparatus of claim 16 wherein the

one or more move commands includes a command to store at a second

stocker unit a reticle currently stored at a first stocker unit.

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18.   (previously presented) The apparatus of claim 16 wherein the one or more move commands includes a command to retrieve a reticle from a respective stocker unit.

19.   (previously presented) The apparatus of claim 16 wherein the one or more move commands includes a command to retrieve a reticle from a respective stocker unit, to move the reticle to a first stocker unit different from the respective stocker unit, and to store the reticle at the first stocker unit.

20.   (currently amended) An apparatus for managing data corresponding to a plurality of reticles in a semiconductor manufacturing system, comprising:

a central reticle database configured and arranged to store data associated with the plurality of reticles; and

a reticle management controller communicably coupled to the central reticle database, the reticle management controller configured and arranged to store data in the central reticle database, and to retrieve data from the central reticle database,

wherein the data associated with the plurality of reticles includes first and second data, each of the first and second data

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including a plurality of data portions, ~~portions~~ each portion of the first data being associated with a respective ~~ones of the plurality of reticles~~reticle, and ~~portions~~ each portion of the second data ~~being~~ corresponding to at least one predetermined data constant associated with ~~more than one of~~ the plurality of reticles.

21.   (previously presented) The apparatus of claim 20 wherein the portions of the first data associated with the respective ones of the plurality of reticles includes a plurality of reticle identifying data.

22.   (original) The apparatus of claim 21 wherein the plurality of reticle identifying data includes:

an attribute identifying the reticle; and

an attribute identifying the location of the reticle.

23.   (original) The apparatus of claim 22 wherein the plurality of reticle identifying data further includes:

an attribute identifying a reticle carrier housing the reticle;

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an attribute identifying a the date and time the reticle was entered into use; and

an attribute identifying a user identifier who created the reticle.

24. (previously presented) The apparatus of claim 20 wherein the portions of the first data associated with the respective ones of the plurality of reticles includes a plurality of reticle history data.

25. (previously presented) The apparatus of claim 20 wherein the portions of the first data associated with the respective ones of the plurality of reticles includes a plurality of reticle history data including:

an attribute identifying the number of times the reticle has been retrieved;

an attribute identifying the date the reticle was last retrieved;

an attribute identifying the number of times the reticle has been stored; and

an attribute identifying the date the reticle was last stored.

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26. (previously presented) The apparatus of claim 20 wherein the portions of the first data associated with the respective ones of the plurality of reticles includes a plurality of reticle history data including:

an attribute identifying a user identifier who last selected the reticle; and

an attribute identifying a user identifier who last stored the reticle.

27. (previously presented) The apparatus of claim 20 wherein the portions of the first data associated with the respective ones of the plurality of reticles includes a plurality of reticle maintenance data.

28. (previously presented) The apparatus of claim 27 wherein the plurality of reticle maintenance data includes:

an attribute identifying the number of times the reticle has been cleaned;

an attribute identifying the date on which the reticle was last cleaned;

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an attribute identifying the number of times the reticle was inspected; and

an attribute identifying the date on which the reticle was last inspected.

29. (original) The apparatus of claim 28 wherein the plurality of reticle maintenance data further includes:

an attribute identifying a user identifier who last cleaned the reticle;

an attribute identifying a location where the reticle was last cleaned;

an attribute identifying a user identifier who last inspected the reticle; and

an attribute identifying a location where the reticle was last inspected.

30. (previously presented) The apparatus of claim 20 further including:

a central system database configured and arranged to store portions of the second data corresponding to system requirements of the plurality of reticles,

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wherein the reticle management controller is communicably coupled to the central system database, the reticle management controller being configured and arranged to store and to retrieve the system data from the central system database.

31. (previously presented) The apparatus of claim 30 wherein the portions of the second data corresponding to the system requirements of the plurality of reticles includes:

an attribute identifying the maximum number of cleanings of a reticle;

an attribute identifying the maximum number of inspections of a reticle;

an attribute identifying the maximum number of uses of a reticle between inspections; and

an attribute identifying the maximum number of uses of a reticle between cleaning.

32. (previously presented) The apparatus of claim 30 wherein the portions of the second data corresponding to the system requirements of the plurality of reticles includes:

an attribute identifying the maximum time between inspections of a bare reticle; and

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an attribute identifying the maximum time between cleanings of a bare reticle.

33. (previously presented) The apparatus of claim 30 wherein the portions of the second data corresponding to the system requirements of the plurality of reticles includes:

an attribute identifying the maximum time between inspections of a kitted reticle; and

an attribute identifying the maximum time between cleanings of a kitted reticle.

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